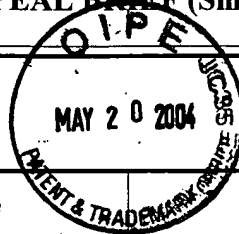


EV5399043100S

## TRANSMITTAL OF APPEAL BRIEF (Small Entity)

Docket No.  
BKR-21102/01

In Re Application Of: Peter Leslie Hart

Serial No.  
09/719,256Filing Date  
12/7/2000Examiner  
Raymond W. AddieGroup Art Unit  
3671

Invention: PAVING BLOCK

TO THE COMMISSIONER FOR PATENTS:

Transmitted herewith in triplicate is the Appeal Brief in this application, with respect to the Notice of Appeal filed on:

Applicant is a small entity under 37 CFR 1.9 and 1.27.

A verified statement of small entity status under 37 CFR 1.27:

- ☐ is enclosed.
- ☒ has already been filed in this application.

The fee for filing this Appeal Brief is: \$165.00

- ☒ A check in the amount of the fee is enclosed.
- ☐ The Director has already been authorized to charge fees in this application to a Deposit Account.
- ☒ The Director is hereby authorized to charge any fees which may be required, or credit any overpayment to Deposit Account No. 07-1180

Dated: May 20, 2004

Signature

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I certify that this document and fee is being deposited on \_\_\_\_\_ with the U.S. Postal Service as first class mail under 37 C.F.R. 1.8 and is addressed to the Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

Signature of Person Mailing Correspondence

Typed or Printed Name of Person Mailing Correspondence

CC:



**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE  
BOARD OF PATENT APPEALS AND INTERFERENCES**

Applicant: Peter Leslie Hart

Serial No.: 09/719,256

Group Art Unit: 3673

Filing Date: December 7, 2000

Examiner: Raymond W. Addie

For: PAVING BLOCK

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**APPEAL BRIEF**

Mail Stop Appeal Brief – Patents  
Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

Dear Sir:

**I. Real Party in Interest.**

The real party in interest is Formpave Limited, a British company having its principal place of business at Tufthorn Avenue, Coleford, Gloucestershire, GL16 8PR.

**II. Related Appeals and Interferences.**

There are no other related appeals or interferences.

**III. Status of Claims.**

Claims 2, 6, 7 and 17-21 are pending in this application and are accordingly the subject claims of this appeal. In the Office Action having a mailing date of December 2, 2003, claims 2, 6, 7, 16, 20 and 21 stand rejected under 35 U.S.C. § 102(b) as anticipated by, or in the alternative, under 35 U.S.C. § 103(a) as obvious over United States Patent 5,797,698 ('Barth'). Claims 17 and 18 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Barth in

view of United States Patent 126,171 ('Ballard'). Claims 17-19 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Barth in view of United States Patent 3,722,162 ('Ludvigsen').

Claims 6 and 16 were amended in our reply to the final office action. The amendments to claims 6 and 16 have been entered, but these claims stand rejected.

**IV. Status of Amendments.**

There has been one amendment filed in response to the Office Action having a mailing date of December 2, 2003. The amendment was entered, though the prior art rejections remain unchanged.

**V. Summary of the Invention.**

The invention relates to a paving block for use in construction of a paved surface for bearing wheeled traffic. The paving block includes an upper planar surface 6, a lower surface 5 and planar lateral surface 7. Additionally, each lateral surface includes a lower planar portion and an upper planar portion 8 which is tapered relative to the lower planar portion.

The lower planar portion of each lateral surface 7 lies in a plane which is perpendicular to the lower surface 5. Furthermore, the upper tapered portion 8 of each lateral surface intersects the lower portion of the lateral surface 7 at an angle greater than zero degrees and less than fifteen degrees with respect to a vertical plane. This last feature is critical to Applicant's invention and as discussed *infra*, provides advantages not enjoyed by the prior art and distinguishes Applicant's invention from the prior art.

Additionally, at least one of the lateral surfaces has a vertically extending channel for water drainage. This vertically extending channel is wider than it is deep.

All of these elements are positively defined in the appealed claims.

**VI. Issues on Appeal.**

As set forth in the Office Action having a mailing date of December 2, 2003, there are three issues on appeal, namely:

1. Whether claims 2, 6, 7, 16, 20, 21 are anticipated under 35 U.S.C. § 102(b) by Barth, or, in the alternative are unpatentable under 35 U.S.C. § 103(a) over Barth.

2. Whether claims 17 and 18 are unpatentable over Barth in view of United States Patent 126,171 ('Ballard').

3. Whether claims 17-19 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Barth in view of United States Patent 3,722,162 ('Ludvigsen').

**VII. Grouping of Claims.**

The claims do not stand or fall together. Instead, the claims are separated into two groups as follows:

1. Claims 2, 6, 7, 20 and 21 form the first group.
2. Claims 17-19 form the second group.

Separate arguments are submitted for each group.

**VIII. Arguments.**

1. Claims 2, 6, 7, 16, 20, 21 are rejected as being anticipated under 35 U.S.C. § 102(b) by Barth. Claims 2, 6, 7 depend from claim 20. Claim 16 depends from claim 21.

Applicant respectfully submits that Barth does not include each and every limitation as set forth in the independent claims 20 and 21. Specifically, claims 20 and 21 define a paving block having a lateral surface extending between upper and lower surfaces on each side of the block. Each lateral surface has a planar lower portion and an associated upper tapered planar portion. Claims 20 and 21 require the plane of the upper tapered portion intersect the plane of its

associated lower portion at an angle greater than zero degrees and less than fifteen degrees. This construction offers several advantages not addressed in the prior art.

First, since each lower portion and its associated upper tapered planar portion intersect at a relative small angle, i.e. greater than zero degrees and less than fifteen degrees, the upper edge of each upper tapered portion is spaced from and generally parallel to the upper edge of the upper tapered portion of the adjacent block. A gap is thereby formed between the adjacent upper edges, which prevents the upper edges of the blocks from contacting the upper edges of the adjacent blocks even despite slight rocking of the block in response to a load placed on the block, i.e. from a wheeled vehicle. Preventing contact between the upper edges of adjacent blocks eliminates or at least greatly reduces spalling of the blocks in use.

Second, the small angle between the lower portions and associated upper tapered planar portions provides a small gap between adjacent upper edges, such that small items, such as the heel of a high-heeled shoe, cannot enter therein.

The Patent Examiner rejected independent claims 20 and 21 as being anticipated by, or, in the alternative, patentably obvious over Barth. However, as acknowledged by the Patent Examiner in his Office Action dated December 2, 2003, Barth does not teach a paving block having the upper tapered portion intersecting the lower planar portion at an angle greater than zero degrees and less than fifteen degrees. Instead, Barth merely shows a paving block having a small upper bevel that is clearly outside Applicant's claimed range of zero to fifteen degrees. As such, Applicant respectfully submits that the rejection of claims 20 and 21 by Barth under § 102(b) is in error and requests that the rejections be reversed. Accordingly, Applicant respectfully requests that rejections of the depending claims 2, 6, 7 and 16 also be withdrawn.

Furthermore, Applicant submits that there is absolutely no suggestion or motivation provided in Barth to limit the angle of lower planar portion and upper tapered portion between zero degrees and fifteen degrees. Such suggestion or motivation must be found within the four corners of the Barth reference and cannot be gleaned from Applicant's disclosure based upon hindsight. The Patent Examiner referenced Col. 3, Lines 36-44 in the Barth reference as providing such motivation. Specifically, the Patent Examiner refers to the bevel 22, which is provided "for both functional and aesthetic reasons . . . bevel 22 aids in directing water from the top surface 6 of the stones 2 . . . ." The Patent Examiner argued that it would, therefore, have been obvious, if not, inherent that the lower planar portion and upper tapered portion intersect at an angle between zero and fifteen degrees, in order to facilitate drainage of surface water.

Applicant submits that the Patent Examiner's reference to the bevel (22) as providing the requisite motivation is misplaced and not presented within a proper context. More specifically, the Patent Examiner omitted or did not consider a critical portion in citing Col. 3, Lines 36-44, which provides that the bevel (22) directs water from the top surface 6 of the stones "*to the recesses 10.* [ . . . ] For aesthetic reasons, this bevel 22 can be configured that the recesses 10 reach only to the region of the bevel 22 and therefore do not open through the top surface 6[.]" (emphasis added). Applicant asserts that having the bevel (22) oriented at an angle between zero and fifteen degrees relative to vertical would absolutely not promote a directing or funneling of water to the recesses. The need to drain or funnel water to the recesses is not motivation for modifying the bezel (22) of the Barth reference, as suggested by the Patent Examiner, because such a modification would defeat the purpose of having such a bezel in the first place. Indeed, Applicant's paving block includes such a bevel (10) for performing the draining or funneling function, which is clearly distinct from the upper tapered portion 8 of the lateral surface.

The motivation for providing a small angle ranging from zero to fifteen degrees between the lower planar portion and upper tapered portion is to minimize spalling between adjacent paving blocks. The Barth reference is silent in this regard, and as such, provides no motivation to modify the Barth reference in the fashion suggested by the Patent Examiner. Perhaps most importantly, the Barth paving block does not minimize the possibility of spalling as does Applicant's block. Applicant respectfully submits that the rejection of claims 20 and 21 as unpatentable by Barth under § 103 is in error and respectfully requests the rejections be withdrawn.

2. The Patent Examiner rejected claims 17 and 18 under 35 U.S.C. § 103(a) as being unpatentable over Barth in view of United States Patent 126,171 ('Ballard'). Claims 17-19 speak for themselves but, in essence, add the limitation of the upper bevel edge 10 to the basic block construction set forth in claims 20 and 21, i.e. the independent claims.

The Patent Examiner argued that Barth discloses a paving stone (2) having a lateral surface with a tapered upper portion (22), but does not disclose a beveled edge of the upper surface. The Patent Examiner asserts that Ballard, however, discloses a beveled edge (a-b, d-e) and that it would have been obvious to combine a beveled edge of Ballard with the paving stone of Barth. No suggestion or motivation can be found in Ballard to provide a bevel edge around the periphery of the upper surface at its common edge with the upper tapered portion of the lateral surface of the block. Further, no suggestion of motivation can be found in Ballard to provide the bevel edge at an incline greater than that of the upper tapered portion.

The Patent Examiner asserts that Ballard suggests the use of a beveled portion to facilitate water drainage. Applicant respectfully asserts that there is no mention whatsoever of water drainage in Ballard and, by definition, no motivation for providing a bevel edge for water

drainage as asserted by the Patent Examiner. Indeed, Ballard suggests filling the space defined between the bezels and sides of adjacent blocks with concrete, vulcanite or other materials *suitable for preventing vertical displacement of the blocks relative to each other* – not for facilitating water drainage, as asserted by the Patent Examiner. Both Barth and Ballard lack any suggestion or motivation for making the combination as argued by the Patent Examiner. Applicant, therefore, respectfully submits that the rejection of claim 17 and 18 as being unpatentable under § 103(a) over Barth in view of Ballard is in error and respectfully requests the rejections be withdrawn.

3. The Patent Examiner rejected claims 17-19 under 35 U.S.C. § 103(a) as being unpatentable over Barth in view of United States Patent 3,722,162 ('Ludvigsen'). The Patent Examiner argued that Barth discloses a paving stone (2) having a lateral surface with a tapered upper portion (22), but does not disclose a beveled edge of the upper surface. The Patent Examiner asserts that Ludvigsen, however, discloses a beveled portion (7) and that it would have been obvious to one of ordinary skill in the art to provide to combine the beveled edge of Ludvigsen with the paving stone of Barth. No suggestion or motivation can be found in Ludvigsen to provide a bevel edge around the periphery of the upper surface *at its common edge with the upper tapered portion* of the lateral surface of the block. No suggestion or motivation can be found in Ludvigsen to provide the bevel edge at an incline greater than that of the upper tapered portion or at an angle between 30 and 40 degrees relative to the upper surface. Further, no suggestion or motivation can be found in Ludvigsen to provide a shoulder parallel with the upper surface of the block, which separates the *upper tapered portion* from the beveled edge. Both Barth and Ludvigsen lack any suggestion or motivation for making the combination as argued by the Patent Examiner. Applicant, therefore, respectfully submits that the rejection of



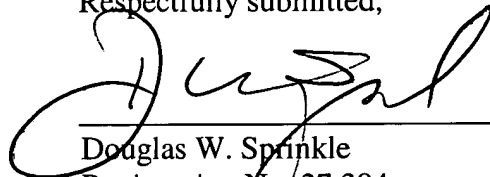
claims 17-19 under § 103(a) as being unpatentable over Barth in view of Ludvigsen is in error and respectfully requests the rejections be withdrawn.

Paving blocks form a very old art. However, not one of the references cited by the Patent Examiner disclose or suggest Applicant's construction in which the upper and lower portions of the lateral surfaces intersect in the range of zero to fifteen degrees. This feature is clearly defined in the appealed claims and, as previously discussed, achieves advantages over the prior art paving blocks.

**IX. Conclusion.**

From the foregoing, Applicant submits that claims 2, 4, 6, 7 and 16-21 each embody patentable subject matter and are in condition for allowance. Accordingly, reversal of the rejection of the claims at issue is respectfully requested.

Respectfully submitted,



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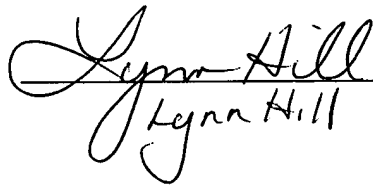
Attorney for Applicant

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DATE OF DEPOSIT May 20, 2004

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Lynn Hill

## **APPENDIX A**

### **CLAIMS ON APPEAL**

2. A paving block according to claim 20, wherein the upper tapered portion of each lateral surface extends over 10% to 80% of the entire height of the lateral surface.

4. A paving block as claimed in claim 20, in which all lateral surfaces of the paving block have at least one channel therein.

6. A paving block as claimed in claim 20 in which the depth of said at least one channel is not greater than about 5mm.

7. A paving block as claimed in claim 20 in which the material from which the block is made is impermeable.

16. A paving surface according to claim 21, in which the paving blocks are made from an impermeable material.

17. A paving block according to claim 20, wherein the upper surface of the block has a bevelled edge portion around its periphery at its common edge with said tapered portion of said lateral surface, said bevelled edge portion being inclined with respect to said lateral surface at a greater angle than said tapered portion thereof.

18. A paving block according to claim 17, wherein said bevelled edge portion is inclined at an angle between  $30^{\circ}$  and  $40^{\circ}$  with respect to said upper surface.

19. A paving block according to claim 17, wherein a shoulder having a surface generally parallel to said upper surface separates said tapered surface portion from said bevelled edge portion.

20. A paving block having interconnected sides for use in the construction of a paved surface for bearing wheeled traffic, said paving block comprising:

an upper planar surface and a lower surface spaced from and generally parallel to said upper planar surface,

a lateral surface extending between said upper surface and said lower surface on each side of the block,

each lateral surface having a planar lower portion and an associated upper tapered planar portion,

said planar lower portion lying in a plane generally perpendicular to a plane of said lower surface so that, with the blocks positioned adjacent each other, said lower portions of said lateral surfaces of adjacent blocks abut against each other,

said upper tapered portion of each lateral surface having a lower edge which intersects and terminates at an upper edge of its associated lower portion of said lateral surface, a plane of said upper tapered portion intersecting the plane of its associated lower portion at an angle greater than zero degrees and less than fifteen degrees so that an upper edge of each upper

tapered portion is spaced from and generally parallel to the upper edge of the upper tapered portion of an adjacent paving block, and

at least one of said lateral surfaces having at least one channel extending from said bottom surface towards said upper surface, said channel having a width greater than its depth.

21. A paving block having interconnected sides for use in the construction of a paved surface for bearing wheeled traffic, said paving block comprising

an upper planar surface and a lower surface spaced from and generally parallel to said upper planar surface,

a lateral surface extending between said upper surface and said lower surface on each side of the block,

each lateral surface having a planar lower portion and an associated upper tapered planar portion,

said planar lower portion lying in a plane generally perpendicular to a plane of said lower surface so that, with the blocks positioned adjacent each other, said lower portions of said lateral surfaces of adjacent blocks abut against each other,

said upper tapered portion of each lateral surface having a lower edge which intersects and terminates at an upper edge of its associated lower portion of said lateral surface, a plane of said upper tapered portion intersecting the plane of its associated lower portion at an angle greater than zero degrees and less than fifteen degrees so that an upper edge of each upper tapered portion is spaced from and generally parallel to the upper edge of the upper tapered portion of an adjacent paving block.